AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in this application:

Listing of claims:

1. (Previously Presented) A process for the production of hydrocarbyl silyl unsaturated carboxylates of formula (I)

$$R^{7}-CH=C$$

$$C-O \xrightarrow{R^{6}} R^{4} \xrightarrow{R^{1}} R^{1}$$

$$Si-O \xrightarrow{Si} R^{2}$$

$$R^{5} \xrightarrow{R^{3}} R^{3}$$
(1)

wherein

 R^1 , R^2 , R^3 , R^4 , R^5 each independently represent hydrogen, hydroxyl, alkyl, alkenyl, alkynyl, alkoxyl, aryl, aryloxyl, aralkyloxyl, -O-SiR¹R²R³, -O-(SiR⁴R⁵O)_n-SiR¹R²R³ or aralkyl radical optionally substituted by one or more substituents independently selected from the group comprising alkyl, alkoxyl, aralkyl, aralkyloxyl, aryl, aryloxyl, silyl, -O-SiR¹R²R³, -O-(SiR⁴R⁵O)_n-SiR¹R²R³, hydroxyl, halogen, amino or amino alkyl radicals, or may independently be an -O-C(O)-C(R⁶)=CHR⁷ group;

 R^6 represents a hydrogen atom, or an alkyl group, or $(-R^{11}-)_{o}C(O)OR^{10}$ wherein R^{10} represents an hydrogen atom, $-(SiR^4R^5O)_{n}-SiR^1R^2R^3$ wherein R^1 , R^2 , R^3 , R^4 , R^5 are as already defined or an alkyl group; wherein R^{11} is independently selected from alkyl, alkenyl, alkynyl, aryl or an aralkyl radical optionally substituted by one or more substituents independently selected from alkyl, alkenyl, aralkyl, aryl, hydroxyl, halogen, amino or amino alkyl radicals; o=0 or 1;

R⁷ represents a hydrogen atom, or independently represents alkyl, aryl, aralkyl, alkenyl, alkynyl radical optionally substituted with the same radicals as defined for R⁶ above or R⁷ represents – COOR⁹ wherein R⁹ represents an hydrogen atom, an alkyl group or -(SiR⁴R⁵-O)_n-SiR¹R²R³ wherein R¹, R², R³, R⁴ and R⁵ are as already defined;

by reaction of an unsaturated carboxylic acid of formula (II)

$$R^{7}$$
—CH=C C -OH C -OH C

wherein R⁶ and R⁷ in formula (II) are as defined above; with a hydrocarbyl silyl compound of formula (III)

$$R^{6} = O - \left(\begin{array}{c} R^{4} \\ I \\ Si - O \end{array}\right) - \left(\begin{array}{c} R^{1} \\ I \\ Si - R^{2} \end{array}\right)$$

$$R^{5} = R^{2}$$

$$R^{5} = A^{2}$$

$$R^{5} = A^{2$$

wherein R¹, R², R³, R⁴ and R⁵ are as defined above and R⁸ is an hydrogen atom, an alkyl, aralkyl or aryl, alkenyl or alkynyl group optionally substituted with one or more substituents selected from the equivalent substituents as detailed for R¹-R⁵ above; and each n above independently represents a number of dihydrocarbylsiloxane units from 0 to 1000; the said reaction being carried out in the presence of a silaphilic catalyst.

- 2. (Original) A process according to claim 1, wherein R¹, R², R³, R⁴ and R⁵ each independently represent an alkyl, an aryl group or a hydrogen atom.
- 3. (Previously Presented) A process according to claim 1, wherein R¹, R², R³, R⁴, R⁵, R⁶ and R⁹ are each independently selected from the group comprising methyl, ethyl, propyl, isopropyl, isobutyl, n-butyl, sec-butyl, t-butyl.
- 4. (Previously Presented) A process according to claim 1 wherein R⁴, R⁵, R⁶, R⁷ and R⁹ are independently methyl.
- 5. (Previously Presented) A process according to claim 1 wherein R¹, R² and R³ are n-butyl.

- 6. (Currently Amended) A process according to claim 1, wherein the silaphilic <u>catalyst is selected fromeatalysts are</u> fluoride containing mineral or organic salts which comprise sodium fluoride, potassium fluoride, caesium fluoride or tetrabutyl ammonium fluoride (Bu₄NF); or <u>isare</u> selected from N-methyl imidazole(NMI), N,N-dimethylamino pyridine(DMAP), hexamethylphosphoric triamide (HMPA), 4,4 dimethyl imidazole, N methyl-2-pyridone(NMP), pyridine N-oxide, triphenylphosphine oxide, 2,4 dimethyl pyridine, N-methyl 4-pyridone, dimethyl formamide(DMF), 3,5 dimethyl pyridine, N,N-dimethylethylene Urea(DMEU), N,N-dimethylpropylene Urea (DMPU), pyridine, imidazole, trimethylamine, dimethyl sulphoxide(DMSO), N-methyl pyrrolidinone(NMP), formamide, N-alkylformamides, N,N-dialkylformamides, acetamide, N- alkylacetamides, N, N-dialkylacetamides, alkylcyanides, N-methyl pyrrolidone, p-dimethylaminobenzaldehyde, 1, 2-dimethyl imidazole, LiOH, LiStearate, NaI, MeONa or MeOLi; wherein the term alkyl includes any linear cyclic, bicyclic, polycyclic, alkyl aliphatic or aromatic group and in the case of N,N-compounds the alkyl may be the same or different.
- 7. (Previously Presented) A process according to claim 1, wherein the catalysts are homogenous or heterogenous.
- 8. (Previously Presented) A process according to claim 1 wherein the catalyst is able to coordinate reversibly with the silicon atom.
- 9. (Original) A process according to claim 8, wherein the catalyst is capable of forming a penta or hexa coordinated silicon species.
- 10. (Previously Presented) A process according to claim 1, wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁸, R⁹ and R⁷ are alkyl radicals independently selected from methyl, ethyl, n-propyl, isopropyl n-butyl, isobutyl, sec-butyl, tert-butyl, 2-methylbutyl, pentyl, iso-amyl, hexyl, cyclohexyl, 3-methylpentyl, octyl and the like.
- 11. (Previously Presented) A process according to claim 1, wherein the hydrocarbyl silyl esters of formula I are selected from tri-n-butyl 1- (meth)acryloyloxy-silane, tri-n-propyl-1-

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(meth)acryloyloxy silane, tri-t-butyl-l- (meth)acryloyloxy-silane, tri-isopropyl-l-
(meth)acryloyloxy-silane, triisobutyl-l- (meth)acryloyloxy-silane, tri-methyl-l-
(meth)acryloyloxy-silane, triethyl-1-(meth)acryloyloxy-silane, tribenzyl-1-(meth)acryloyloxy-
silane, triamyl-1-(meth)acryloyloxy-silane, triphenyl-1-(meth)acryloyloxy silane, nonamethyl-1-
(meth)acryloyloxy-tetrasiloxane, nonaethyl-1-(meth)acryloyloxy-tetrasiloxane, nona-t-butyl-1-
(meth)acryloyloxy-tetrasiloxane, nonabenzyl-1-(meth)acryloyloxy-tetrasiloxane, nona-isopropy-
1-(meth)acryloyloxy-tetrasiloxane, nona-n-propyl-1-
(meth)acryloyloxy-tetrasiloxane, nona-isobuty-1-
(meth)acryloyloxy-tetrasiloxane, nona-amyl-1-
(meth)acryloyioxy-tetrasiloxane, nona-n-butyl-1-
(meth)acryloyloxy-tetrasiloxane, nona-dodecyl-1-
(meth)acryloyloxy-tetrasiloxane, nona-hexyl-l-
(meth)acryloyloxy-tetrasiloxane, nona-phenyl-1-
(meth)acryloyloxy-tetrasiloxane, nona-octyl-1-
(meth)acryloyloxy-tetrasiloxane, undecamethyl-1-
(meth)acryloyloxy-pentasiloxane, undecaethyl-1-
(meth)acryloyloxy-pentasiloxane, undeca-t-butyl-l-
(meth)acryloyloxy-pentasiloxane, undecabenzyl-1-
(meth)acryloyloxy-pentasiloxane, undeca-isopropyl-1-
(meth)acryloyloxy-pentasiloxane, undeca-n-propyl-l-
(meth)acryloyoxy-pentasiloxane, undeca-isobutyl-1-
(meth)acryloyloxy-pentasiloxane, undeca-amyl-l-
(meth)acryloyloxy-pentasiloxane, undeca-n-butyl-l-
(meth)acryloyloxy-pentasiloxane, undeca-dodecyl-1-
(meth)acryloyloxy-pentasiloxane, undeca-hexyl-1-
(meth)acryloyloxy-pentasiloxane, undeca-phenyl-l-
(meth)acryloyloxy-pentasiloxane, undeca-octyl-l-
(meth)acryloyloxy-pentasiloxane, tridecamethyl-1-
(meth)acryloyloxy-hexasiloxane, tridecaethyl-l-
(meth)acryloyloxy-hexasiloxane, trideca-t-butyl-1-
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(meth)acryloyloxy-hexasiloxane, tridecabenzyl-l-

(meth)acryloyloxy-hexasiloxane, trideca-isopropyl-1-

(meth)acryloyloxy-hexasiloxane, trideca-n-propyl-1-

(meth)acryloyloxy-hexasiloxane, trideca-isobutyl-l-

(meth)acryloyloxy-hexasiloxane, trideca-amyl-l-

(meth)acryloyloxy-hexasiloxane, trideca-n-butyl-1-

(meth)acryloyloxy-hexasiloxane, trideca-dodecyl-1-

(meth)acryloyloxy-hexasiloxane, trideca-hexyl-1-

(meth)acryloyloxy-hexasiloxane, trideca-pheny-1-

(meth)acryloyloxy-hexasiloxane, trideca-octyl-1-

(meth)acryloyloxy-hexasiloxane, 1,3,3,3-tetramethyl-1-trimethylsilyloxy-1-(meth)acryloyloxy-disiloxane, 1-ethyl-3,3,3-trimethyl-1-trimethylsilyloxy-1-(meth)acryloyloxy-disiloxane, tris-(trimethylsilyloxy)-1-methacryloyloxy-silane and polymers thereof.

- 12. (Previously Presented) A process according to claim 1, wherein the catalysts are independently selected from DMF, DMSO, formamide, N-alkylformamides, N, N-dialkylformamides, acetamide, N-alkylacetamides, N,N-dialkylacetamides, N- Methyl pyrrolidone, p-dimethylaminobenzaldehyde, DMAP, N- methyl imidazole, 1,2-dimethyl imidazole, HMPA, DMPU, NaI, MeONa, MeOLi, Bu4NF, Ph3PO, LiOH, LiStearate and pyridine N-oxide.
- 13. (Previously Presented) A process according to claim 1, wherein the catalysts are present at a level of 0.001-100 mol% (mol/mol silane).
- 14. (Previously Presented) A process according to claim 1, wherein the reaction includes a polymeric inhibitor.
- 15. (Previously Presented) A process according to claim 1, wherein the reaction is carried out in a suitable solvent.
- 16. (Original) A process according to claim 15, wherein suitable solvents include non polar inert solvents, aliphatic hydrocarbons, cyclic and non cyclic ethers.

- 17. (Previously Presented) A process according to claim 16, wherein the solvent is independently selected from pentane, hexane, heptane, toluene, xylene, benzene, mesitylene, ethylbenzene, octane, decane, decahydronaphthlene, diethyl ether, diisopropyl ether, diisobutyl ether or mixtures thereof.
- 18. (Previously Presented) A process according to claim 15, wherein the solvent causes no distillation of any of the reactants but allows reactive distillation.
- 19. (Previously Presented) A process according to claim 15, wherein the solvent forms a low boiling azeotrope with the distilled R⁸OH.
- 20. (Previously Presented) A process according to claim 15, wherein the solvents are independently selected from pentane, hexane, heptane, toluene and xylene.
- 21. (Previously Presented) A process according to claim 1, wherein the reaction is carried out in the range 0°C 200°C.
- 22. (Previously Presented) A process according to claim 1, wherein a polymerisation inhibitor is present in the range 0.001-10% wt/wt of the total reaction mix.
- 23. (Previously Presented) A process according to claim 1, wherein the molar ratio of silane:acid is between 1:100 and 50:1.
- 24. (Previously Presented) A process according to claim 1, wherein the solvent is at least 10 wt% of the total reaction mix at the start of the reaction.
- 25. (Previously Presented) A hydrocarbyl silyl monomer as defined in formula I produced by a process in accordance with claim 1.

- 26. (Original) A process according to claim 1, wherein the number of (alk)acryloyl groups in formula I is less than 4.
- 27. (Original) A process according to claim 1, wherein the number of (alk)acryloyl groups in formula I is less than 1.
- 28. (Original) A process according to claim 1, wherein when R¹⁰ represents alkyl or hydrogen in formula II, it represents -(SiR⁴R⁵O)_n-SiR¹R²R³ in formula I, wherein n and R¹-R⁵ are as defined previously.
- 29. (Original) A process according to claim 1, wherein when R^1 , R^2 , R^3 , R^4 or R^5 are aryloxyl, alkaryloxyl, alkoxyl or hydroxyl in formula III, they may represent or O-C(O)-C(R^6)=CHR 7 in formula I.
- 30. (Original) A process according to claim 1, wherein where R⁹ represents an alkyl group or an hydrogen atom in formula (II), it may represent -(SiR⁴R⁵·O)_n-SiR¹R²R³ in formula (I).
- 31. (Currently Amended) A process according to claim 1 wherein said catalyst may be a metal alkoxide, an organic tin compound or a boron compound or cyclic 1,3,5₋ triisopropoxycyclotrialuminoxane and the like.
- 32. (Currently Amended) A process according to claim 6, wherein the silaphilic catalyst is N-formyl Rosinamine.